

110TH CONGRESS  
1ST SESSION

# S. 2355

To amend the National Climate Program Act to enhance the ability of the United States to develop and implement climate change adaptation programs and policies, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

NOVEMBER 14, 2007

Ms. CANTWELL introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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## A BILL

To amend the National Climate Program Act to enhance the ability of the United States to develop and implement climate change adaptation programs and policies, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Climate Change Adap-  
5 tation Act”.

1 **SEC. 2. AMENDMENT OF NATIONAL CLIMATE PROGRAM**  
2 **ACT.**

3 Except as otherwise expressly provided, whenever in  
4 this title an amendment or repeal is expressed in terms  
5 of an amendment to, or repeal of, a section or other provi-  
6 sion, the reference shall be considered to be made to a  
7 section or other provision of the National Climate Pro-  
8 gram Act (15 U.S.C. 2901 et seq.).

9 **SEC. 3. FINDINGS.**

10 Section 2 (15 U.S.C. 2601) is amended to read as  
11 follows:

12 **“SEC. 2. FINDINGS.**

13 “The Congress finds that—

14 “(1) weather, climate change, and climate vari-  
15 ability affect public safety, environmental services  
16 and security, human health, agriculture, energy use,  
17 water resources, and other factors vital to national  
18 security and human welfare;

19 “(2) the present rate of advance of national ef-  
20 forts in research and development and the applica-  
21 tion of such advances is inadequate to meet the chal-  
22 lenges posed by observed and projected rates of cli-  
23 mate change and climate variability and the increas-  
24 ing demand for information to guide planning and  
25 response across all sectors;

1           “(3) the United States lacks adequate research,  
2           infrastructure, and coordinated outreach and com-  
3           munication mechanisms to meet national climate  
4           monitoring, prediction, and decision support needs  
5           for adapting to and mitigating the impacts of cli-  
6           mate change and climate variability;

7           “(4) information regarding climate change and  
8           climate variability is not being fully disseminated or  
9           used, and Federal efforts have given insufficient at-  
10          tention to assessing and applying this information;

11          “(5) climate change and climate variability  
12          occur on a global basis making international co-  
13          operation essential for the purpose of sharing the  
14          benefits and costs of a global effort to understand  
15          and communicate these changes;

16          “(6) recent scientific reports by the Intergov-  
17          ernmental Panel on Climate Change conclusively  
18          found that climate change is occurring, and that im-  
19          pacts from climate change can be expected in even  
20          shorter time periods than had been previously pre-  
21          dicted;

22          “(7) the Panel found that the resilience of  
23          many ecosystems is likely to be exceeded this cen-  
24          tury by an unprecedented combination of climate  
25          change, associated disturbances such as flooding and

1 drought, and other global change drivers such as  
2 land-use change;

3 “(8) according to the Panel, approximately 20  
4 to 30 percent of plant and animal species assessed  
5 so far are likely to be at increased risk of extinction  
6 if increases in global average temperature exceed 1.5  
7 to 2.5 degrees Celsius;

8 “(9) the Panel also found that the progressive  
9 acidification of oceans due to increasing atmospheric  
10 carbon dioxide is expected to have negative impacts  
11 on marine shell-forming organisms, such as corals,  
12 and their dependent species;

13 “(10) the Panel found that coasts will be ex-  
14 posed to increasing risks, including coastal erosion,  
15 over coming decades due to climate change and sea-  
16 level rise, and that adaptation costs for vulnerable  
17 coasts are much less than the costs of inaction;

18 “(11) in its September, 2007, study entitled  
19 Evaluating Progress of the U.S. Climate Change  
20 Science Program: Methods and Preliminary Results,  
21 the National Academy of Sciences concluded that  
22 there is a tremendous need to improve the delivery  
23 of information to decision makers at the Federal, re-  
24 gional, and local levels on climate change impacts

1 and to take such impacts into account in planning  
2 and in managing resources;

3 “(12) States and local communities may need  
4 Federal assistance in developing and implementing  
5 strategies to address the impacts of climate change;

6 “(13) in its August, 2007, report entitled Cli-  
7 mate Change: Agencies Should Develop Guidance for  
8 Addressing the Effects on Federal Land and Water  
9 Resources, GAO–07–863, the Government Account-  
10 ability Office found that the Federal Government is  
11 not providing the National Oceanic and Atmospheric  
12 Administration and other Federal agencies that are  
13 responsible for managing natural resources with the  
14 proper tools or policy mandates to take the impacts  
15 of climate change into account in carrying out their  
16 responsibilities to manage public resources;

17 “(14) the National Oceanic and Atmospheric  
18 Administration, which plays a leading role in the  
19 Federal Government’s Global Change Research Pro-  
20 gram, has a key role to play both in predicting im-  
21 pacts of climate change on natural resources and in  
22 improving the delivery of information critical to ad-  
23 aptation and management to end users; and

24 “(15) the National Oceanic and Atmospheric  
25 Administration has a key role to play in addressing

1 the impacts of climate change on our Nation’s coast-  
2 al areas and ocean resources.”.

3 **SEC. 4. DEFINITIONS.**

4 Section 4 (15 U.S.C. 2903) is amended by striking  
5 paragraphs (1) and (2) and redesignating paragraphs (3)  
6 and (4) as paragraphs (1) and (2).

7 **SEC. 5. NATIONAL CLIMATE PROGRAM ELEMENTS.**

8 Section 5 (15 U.S.C. 2904) is amended—

9 (1) by striking “subsection (d)(9);” in sub-  
10 section (b)(1) and inserting “section 6;”;

11 (2) by striking subsections (c), (e), (f), and (g);  
12 and

13 (3) by striking subsection (d) and inserting the  
14 following:

15 “(c) PROGRAM ELEMENTS.—

16 “(1) IN GENERAL.—The Program shall in-  
17 clude—

18 “(1) a strategic plan to address the impacts of  
19 climate change within the United States; and

20 “(2) a National Climate Service to be estab-  
21 lished within the National Oceanic and Atmospheric  
22 Administration.”.

23 **SEC. 6. NATIONAL CLIMATE STRATEGY.**

24 The Act is amended by striking sections 6 through  
25 9 (15 U.S.C. 2905 et seq.) and inserting the following:

1   **“SEC. 6. NATIONAL STRATEGIC PLAN FOR CLIMATE**  
2                   **CHANGE ADAPTATION.**

3           “(a) IN GENERAL.—Not later than 2 years after the  
4   date of enactment of the Climate Change Adaptation Act,  
5   the President shall provide to the Congress a 5-year na-  
6   tional strategic plan to address the impacts of climate  
7   change within the United States, to implement such strat-  
8   egy for federally-managed resources and actions, and to  
9   provide information to and coordinate with State and local  
10   governments and nongovernmental entities to support  
11   similar efforts with respect to non-Federal natural re-  
12   sources. The President shall provide a mechanism for con-  
13   sulting with States and local governments, the private sec-  
14   tor, universities, and other nongovernmental entities in de-  
15   veloping the plan. The plan shall be updated at least every  
16   5 years.

17          “(b) CONTENTS OF PLAN.—The plan shall, at a min-  
18   imum—

19               “(1) identify existing Federal requirements,  
20               protocols, and capabilities for addressing climate  
21               change impacts on federally managed resources and  
22               actions;

23               “(2) identify measures to improve such capabili-  
24               ties and the utilization of such capabilities;

1           “(3) include protocols to integrate climate  
2           change impacts into Federal agency actions and  
3           policies, consistent with existing authorities;

4           “(4) address vulnerabilities and priorities iden-  
5           tified through the assessments carried out under the  
6           Global Change Research Act of 1990 and this Act;

7           “(5) establish a mechanism for the exchange of  
8           information related to addressing the impacts of cli-  
9           mate change with, and provide technical assistance  
10          to, State and local governments and nongovern-  
11          mental entities;

12          “(6) develop partnerships with State and local  
13          governments and nongovernmental entities to sup-  
14          port and coordinate implementation of the plan;

15          “(7) include implementation and funding strate-  
16          gies for short-term and long-term actions that may  
17          be taken at the national, regional, State, and local  
18          level;

19          “(8) establish a process to develop more de-  
20          tailed agency and department-specific plans;

21          “(9) identify opportunities to utilize remote  
22          sensing and other geospatial technologies to improve  
23          planning for adaptation to climate change impacts;  
24          and



1           “(10) identify existing legal authorities and ad-  
2           ditional authorities necessary to implement the plan.

3           “(c) AGENCY-LEVEL STRATEGIES.—

4           “(1) AGENCY PLANS.—Each department and  
5           agency of the Executive Branch shall develop a de-  
6           tailed plan, based on the national plan, for address-  
7           ing climate change impacts with respect to such de-  
8           partment or agencies policies and actions, within 1  
9           year after the date that the plan is submitted under  
10          subsection (b) and provide such plan to Congress.

11          “(2) INTERIM ACTIVITIES.—Nothing in this  
12          section shall be understood to prevent any Federal  
13          agency or department to take climate change im-  
14          pacts into account, consistent with its existing au-  
15          thorities, until the plans are provided to Congress  
16          and steps to implement such plans are taken.

17          “(d) COORDINATION.—The President shall ensure  
18          that the mechanism to provide information related to ad-  
19          dressing the impacts of climate change to State and local  
20          governments and nongovernmental entities is appro-  
21          priately coordinated or integrated with existing programs  
22          that provide similar information on climate change pre-  
23          dictions.

24          “(e) RELATIONSHIP TO OTHER AUTHORITIES.—  
25          Nothing in this section shall supersede any Federal au-

1 thority in effect on the date of enactment of the Climate  
2 Change Adaptation Act.

3 “(f) AUTHORIZATION OF APPROPRIATIONS.—There  
4 are authorized to be appropriated for each of fiscal years  
5 2009 through 2013 \$10,000,000 to carry out this section.

6 **“SEC. 7. OCEAN AND COASTAL VULNERABILITY AND ADAP-**  
7 **TATION.**

8 “(a) COASTAL AND OCEAN VULNERABILITY.—

9 “(1) IN GENERAL.—Within 2 years after the  
10 date of enactment of the Climate Change Adaptation  
11 Act, the Secretary of Commerce shall, in consulta-  
12 tion with the appropriate Federal, State, and local  
13 governmental entities, conduct regional assessments  
14 of the vulnerability of coastal and ocean areas and  
15 resources to hazards associated with climate change,  
16 climate variability, and ocean acidification includ-  
17 ing—

18 “(A) sea level rise;

19 “(B) fluctuation of Great Lakes water lev-  
20 els;

21 “(C) increases in severe weather events;

22 “(D) storm surge;

23 “(E) rainfall;

24 “(F) flooding and inundation;

25 “(G) changes in sea ice;

1           “(H) changes in ocean currents impacting  
2           global heat transfer;

3           “(I) increased siltation due to coastal ero-  
4           sion;

5           “(J) shifts in the hydrological cycle;

6           “(K) natural hazards, including tsunami,  
7           drought, flood, and fire;

8           “(L) coral reef bleaching; and

9           “(M) alteration of ecological communities,  
10          including at the ecosystem or watershed levels,

11          “(2) UPDATES.—The Secretary shall update  
12          such assessments at least once every 5 years.

13          “(3) REGIONAL COASTAL AND OCEAN ASSESS-  
14          MENTS.—In preparing the regional coastal assess-  
15          ments, the Secretary shall take into account the in-  
16          formation and assessments being developed pursuant  
17          to the Global Change Research Program. The re-  
18          gional assessments shall include an evaluation of—

19               “(A) physical, biological, and ecological im-  
20               pacts, such as coastal erosion, flooding and loss  
21               of estuarine habitat, saltwater intrusion of  
22               aquifers and saltwater encroachment, impacts  
23               on food web distribution, species migration, spe-  
24               cies abundance, and changes in marine patho-  
25               gens and diseases;

1                   “(B) social impacts associated with threats  
2                   to and potential losses of housing, communities,  
3                   and infrastructure; and

4                   “(C) economic impacts on local, State, and  
5                   regional economies, including the impact on  
6                   abundance or distribution of economically im-  
7                   portant living marine resources.

8           “(b) COASTAL AND OCEAN ADAPTATION PLAN.—The  
9   Secretary shall, within 3 years after the date of enactment  
10 of the Climate Change Adaptation Act, submit to the Con-  
11 gress a national coastal and ocean adaptation plan, com-  
12 posed of individual regional adaptation plans that rec-  
13 ommend targets and strategies to address coastal and  
14 ocean impacts associated with climate change, ocean acidi-  
15 fication, sea level rise, and climate variability. The plan  
16 shall be developed with the participation of other Federal,  
17 State, and local government agencies that will be critical  
18 in the implementation of the plan at the State and local  
19 levels and shall take into account recommendations of the  
20 National Science Board in its January 12, 2007, report  
21 entitled Hurricane Warning: The Critical Need for a Na-  
22 tional Hurricane Research Initiative and other relevant  
23 studies, and not duplicate existing Federal and State haz-  
24 ard planning requirements. The Plan shall recommend

1 both short- and long-term adaptation strategies and shall  
2 include recommendations regarding—

3 “(1) Federal flood insurance program modifica-  
4 tions;

5 “(2) areas that have been identified as high risk  
6 through mapping and assessment;

7 “(3) mitigation incentives such as rolling ease-  
8 ments, strategic retreat, State or Federal acquisition  
9 in fee simple or other interest in land, construction  
10 standards, and zoning;

11 “(4) land and property owner education;

12 “(5) economic planning for small communities  
13 dependent upon affected coastal and ocean re-  
14 sources, including fisheries;

15 “(6) coastal hazards protocols to reduce the  
16 risk of damage to lives and property, and a process  
17 for evaluating the implementation of such protocols;

18 “(7) strategies to address impacts on the most  
19 vulnerable living marine resources;

20 “(8) proposals to integrate measures into the  
21 actions and policies of the National Oceanic and At-  
22 mospheric Administration;

23 “(9) a plan for additional research and develop-  
24 ment of technologies and capabilities to address such  
25 impacts;

1           “(10) plans to pursue bilateral and multilateral  
2       agreements necessary to effectively address such im-  
3       pacts;

4           “(11) partnerships with States and nongovern-  
5       mental organizations;

6           “(12) methods to mitigate the impacts identi-  
7       fied, including habitat restoration measures; and

8           “(13) funding requirements and mechanisms.

9       “(c) TECHNICAL PLANNING ASSISTANCE.—The Sec-  
10     retary, through the National Oceanic and Atmospheric  
11     Administration, shall establish a coordinated program to  
12     provide technical planning assistance and products to  
13     coastal States and local governments as they develop and  
14     implement adaptation or mitigation strategies and plans.  
15     Products, information, tools and technical expertise gen-  
16     erated from the development of the regional coastal and  
17     ocean assessments and the coastal and ocean adaptation  
18     plans will be made available to coastal States for the pur-  
19     poses of developing their own State and local plans.

20       “(d) COASTAL AND OCEAN ADAPTATION GRANTS.—

21           “(1) IN GENERAL.—The Secretary shall provide  
22       grants of financial assistance to coastal States with  
23       federally approved coastal zone management pro-  
24       grams to develop and begin implementing coastal  
25       and ocean adaptation programs.

1           “(2) ALLOCATION OF FUNDS.—The Secretary  
 2       shall distribute grant funds under paragraph (1)  
 3       among coastal States in accordance with the formula  
 4       established under section 306(c) of the Coastal Zone  
 5       Management Act of 1972 (16 U.S.C. 1455(c)), ad-  
 6       justed in consultation with the States as necessary  
 7       to provide assistance to particularly vulnerable  
 8       coastlines.

9           “(3) MATCHING REQUIREMENT.—The Sec-  
 10      retary shall make grants under paragraph (1) on a  
 11      matching basis under which the ratio of Federal to  
 12      State funds is—

13                   “(A) 4 to 1 in the first fiscal year;

14                   “(B) 2.3 to 1 in the second fiscal year;

15                   “(C) 2 to 1 in the third fiscal year; and

16                   “(D) 1 to 1 thereafter.

17      (e) AUTHORIZATION OF APPROPRIATIONS.—There  
 18      are authorized to be appropriated to the Under Secretary  
 19      of Commerce for Oceans and Atmosphere \$35,000,000 for  
 20      each of fiscal years 2009 through 2013 to carry out the  
 21      provisions of this section, of which \$25,000,000 shall be  
 22      available for grants under subsection (d) for each of such  
 23      fiscal years. Not more than 75 percent of the amount

1 available for grants under subsection (d) for any fiscal  
2 year may be used for grants relating to coastal impacts.”.

○